Chapter 4: FSP Certification Error Trends and Variation

This chapter describes the trends and cross-state variations in FSP certification errors, as a preface to the multivariate analysis of certification effort and errors in the next chapter. As background information for this analysis, we identify the types of certification errors that occur in the FSP, and we describe the quality control (QC) process that produced the public-use QC data used for this study. Next, we present a descriptive analysis of trends and cross-state variations in FSP certification errors during the study period (1989-2001). Last, we summarize previous studies that have sought to identify the factors that affect FSP errors.

Background: FSP Errors and Quality Control

Types and Sources of FSP Errors

FSP rules and performance measures identify four types of errors in the determination of household eligibility and the calculation of benefits:

- Payments to ineligible households
- Overpayments to eligible households
- Underpayments to eligible households
- Negative action errors, i.e. the improper denial or termination of benefits to applicants or participating households.

The certification process[1] includes several types of determinations that may be erroneous.

- Household composition: the certification worker must determine which individuals make up the FSP household according to FSP rules. The worker may fail to include an individual who should be considered part of the FSP household, or fail to exclude an individual who should not be counted.
- Income: the certification worker must determine the total household income from all sources. Errors may arise due to unreported sources of income, misreporting of income, misapplication of rules determining whether income is counted, or incorrect calculation of income.
- Deductions from income: the certification worker must determine the correct amount of deductions from household income to establish the net income. Allowable deductions include a portion of earnings, excess shelter costs, dependent care expenses, child support payments, and medical expenses.

[1] In this discussion, as in FSP terminology, "certification" includes the initial certification of households, recertification of households previously approved for benefits, and processing of periodic reports or interim changes.

- Assets: FSP rules restrict the value of liquid assets and vehicles that eligible households may own. Sources of error include unreported assets, incorrect determination of asset values, and incorrect application of rules regarding the treatment of assets in certification.
- Other eligibility factors: to be eligible, an adult must meet applicable work requirements, which depend on age and responsibility for dependents. FSP rules deny benefits to certain types of non-citizens and convicted felons, and to individuals who have been disqualified from the FSP for program violations.
- Benefit computation: once a household has been determined eligible, the worker must compute the household's monthly food stamp benefit, based on the applicable household size and net income after deductions.

Underpayments, overpayments, and payments to ineligible households can occur in any month that a household is active as an FSP case. Negative action errors can only occur when a worker takes an action that denies benefits to a household—either denying an application for benefits or terminating an active case.

FSP Quality Control

Under FSP rules, States must maintain a quality control (QC) process. Each State must review a sample of active cases and a sample of cases subject to negative actions, in order to determine the annual rates of the four types of errors. FSP rules specify the sample sizes and the procedures for these reviews. For active cases, the QC reviews include examination of electronic and hard-copy case records, household interviews, and collateral contacts (employers, landlords etc.). These reviews identify errors made by the FSP agency and incorrect reporting of eligibility information by FSP households. FNS conducts QC re-reviews of a subsample (one third) of state QC reviews to verify that the QC procedures were followed and the information was used correctly. For the negative action case sample, the State must review the case record, but no other information collection is required. Until FY2000, FNS did not re-review the state negative action QC reviews.

The threshold for a countable error changed during the study period. From FY1989 through FY1999, an error was counted if the monthly benefit was at least $5 too high or low. This threshold was increased to $25 in the FY2000 QC reviews. Therefore, fewer cases were deemed to be in error. For this study, however, the presence of errors was determined by applying the $25 error threshold throughout the period. (The rationale and implications of this decision are discussed later in this chapter.)

There are two ways of computing error rates from the QC data. FNS monitoring has focused on **payment error rates**, i.e., the ratio of the dollar value of underpayments or overpayments to the total amount of authorized benefits. QC data can also be used to compute **case error rates**, i.e., the percent of FSP cases with specified types of errors. Case error rates are available or can be computed for ineligible cases and negative action errors, as well as for eligible cases with underpayments and overpayments. Payment error rates are not available for negative action errors.[2]

[2] In a negative action review, the case record may not contain sufficient information to determine the correct benefit.

States are liable for sanctions (i.e., financial penalties) if they have excessive payment error rates (after adjustments by FNS). In FY1989 through 1997, a State incurred a liability if its combined dollar error rate (underpayments plus overpayments) exceeded the average for all States, with the liability increasing on a sliding scale based on the amount over the national average. Thus, each State had to outperform roughly half of the other States to avoid QC sanctions.

Starting with FY1998, sanctions were determined after the error rates were adjusted for States with above-average percentages of FSP households with earnings or immigrants, and for States with above-average increases in one or both of these percentages. (The base year for increases was 1992 for FY1998 and FY1999; the base year was 1996 for FY2000 and FY2001. The national average error rates for determining performance were not adjusted.) For FY1998-1999, errors under $25 were ignored in computing the adjusted error rates for the purpose of establishing sanctions. During the study period, there were no sanctions for excessive negative action errors.

States can establish agreements with FNS to reinvest the amount of their QC sanctions rather than pay the funds to FNS. As discussed in Chapter Two, States must use reinvested funds to improve their processes for preventing and detecting error through worker training or other methods. FNS has also used its authority to waive a portion of State liabilities if States met specified targets for error reduction.

States can receive additional federal funds if their error rates meet standards for good performance. During the study period, FNS provided enhanced funding to States with combined error rates of 5.9 percent or less.

Use of QC Data for this Report

Error rates analyzed in this chapter and the next used two sources of data. The first source is the QC public use microdata files for 1989 through 2001. These data comprise the active case QC sample, which is representative of all active FSP cases at the state and national levels. Each case record in these files indicates whether the QC review identified an underpayment or overpayment and the amount of the error. The case records also identify cases that were determined ineligible in the QC reviews.

As noted above, from FY1989 through 1999, an underpayment or overpayment of at least $5 per month was identified as an error, while the threshold for identifying errors was $25 per month for FY2000 and FY2001. To make the definition of errors consistent across the whole time period, we have counted only errors of $25 per month in any year.[3] It is important to note, however, that State policy and management decisions regarding error reduction prior to FY2000 were based on the lower threshold of error that was in effect at the time and the error rates that were computed on this basis. It might be objected that States expended more certification-related effort before FY2000 than they would have if the $25 error threshold had been in place. On the other hand, sanctions were based on payment error rates, and errors over $25 had more influence on these rates than those between $5 and $25. Thus, there is some possibility of a distortion of the relationship of error rates to certification-related effort, but this possibility is of less concern than the problem that would arise by using an inconsistent measure of error.

[3] It was not possible to use the $5 threshold for FY2000-2001 because errors of less than $25 were not recorded in the data.

Case error rates –i.e., the ratios of cases with specific types of errors to all active cases—were computed for overpayments, underpayments, and ineligible cases, using these data.

A second data source was used for information on negative action errors. Although microdata are not available on these errors, FNS published summary data on negative action QC reviews. FNS computes the negative action error rate as a percentage of **negative actions**.

For commensurability, both the negative action error rate and the active case error rates needed to be recomputed, because their denominators were different. To facilitate explanation of these computations, table 7 defines the categories of active and negative action cases and assigns each a letter. The computations are described below the table.

Table 7

Components of Case Error Rates

Status	Active (Paid) Cases	Negative Action Cases
Correct	A	G
Overpayment error	B	(not applicable)
Ineligible case error	C	(not applicable)
Underpayment error	D	(not applicable)
Negative action error	(not applicable)	H
Total	(A+B+C+D)=E	(G+H)=I

- Before adjustment, the active case error rates included the following:
  - Overpayment case error rate=B/E
  - Ineligible case error rate=C/E
  - Underpayment case error rate=D/E.
- The active case error rates were adjusted by the ratio of active cases (E) to the sum of active cases and cases subject to negative actions (E+I).
- The published negative action error rate (H/I) was multiplied by the ratio of negative action cases (I) to the sum of active cases and cases subject to negative actions (E+I).

These adjustments assured that the error rates had the same denominator and were fully comparable.

As a result of this adjustment, these rates do not correspond to case error rates published elsewhere. For errors involving active cases, the difference is quite small, because the ratio of negative actions to active cases is very small.

It is important to note that the QC error rates in this chapter represent the proportion of cases with **reported** errors. A QC review may fail to detect an error, or find a case to be in error that is in fact correctly paid. To the extent that QC reviews vary in their effectiveness over time and among States, the reported error rate will vary even if there is no change in the true error rate, i.e., the error rate that would be computed with perfect information.

From the perspective of FSP households' resources, overpayments and certification of ineligible households have a positive impact: the affected households receive more benefits than they would be entitled to. (These benefits may be recovered by the FSP agency if the error is later detected.)

Therefore, these two types of errors are treated as **positive errors** in this and the subsequent chapter, and the sum of the case overpayment rate and the ineligible case rate is the **positive error rate**. On the other hand, underpayments and incorrect denial or termination of benefits have a negative impact on eligible households, so the sum of these case error rates is defined as the **negative error rate.**

Trends and Cross-state Variations in FSP Error Rates

In the discussion that follows, we first describe the trends in the **positive** case error rate for the U.S. and its components (the case overpayment rate and the ineligible case rate) over the study period. We also describe the variation in positive case error rates among the States. Next, we describe the trends in the national **negative** error rate and its components (the case underpayment rate and the negative action error rate) and the variation in negative case error rates among the States.

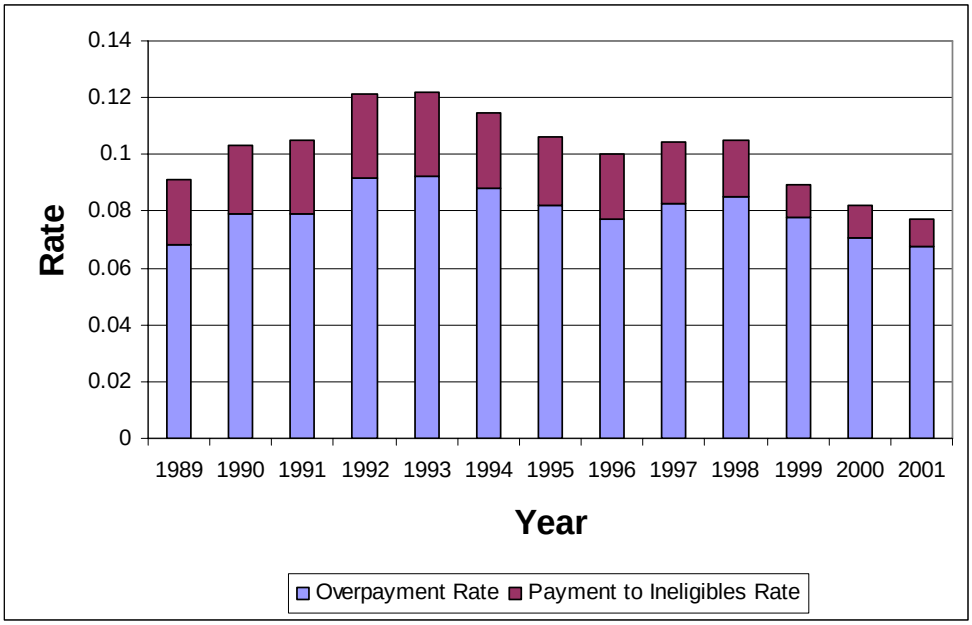
Trends in Positive Case Errors

Figure 28 shows the trends in the total positive case error rate and its components (the case overpayment rate and the ineligible case rate) for the national FSP caseload. The State data were weighted to produce national estimates, so each State's case error rates were weighted by the State's count of FSP households.

The total positive case error rate had two cycles of rising and falling during the study period. The positive error rate rose from 1989 to 1993, then fell through 1996; the positive error rate increased again in 1997 and 1998, then fell in 1999 through 2001 to its lowest levels for the entire period.

Figure 28

Trends in National Positive Case Error Rate and Components, 1989 to 2001



Error rates were computed as a percentage of active FSP cases plus negative actions. A constant error threshold of $25 per month was used in estimating error rates.

The case overpayment rate and the ineligible case rate displayed similar trends during the period. The share of total positive errors represented by ineligible cases fluctuated, increasing in the peak years and shrinking substantially in 1998-2001.

Several trends in the FSP appear related to the trends in the positive error rate. The first cycle, between 1989 and 1996, corresponded with the rise and fall in the national FSP caseload, except that the positive error rate peaked in 1993 but the caseload peaked in 1994 (see Figure 3 for caseload trends). The rising error rate in 1997 and 1998 coincided with the initial implementation of PRWORA, which required major changes in State and local agencies administering TANF and the FSP. Meanwhile, the percent of FSP cases with very short certification periods of one to three months increased substantially from 1994 to 2000. This was one of several methods used by FNS and the States to increase payment accuracy; others include analysis to identify error-prone types of cases, process improvements, and use of computer matching and other automation tools.

As discussed by a review of QC policy in the 1990's (CBPP, 2001), FNS policies regarding QC sanctions starting in the early 1990's increased the incentives for States to focus on error reduction. Numerous States made "reinvestment" agreements with FNS that allowed the States to spend extra funds on error reduction that would have been otherwise paid to FNS as sanctions. Initially, FNS waived most of the State liabilities and allowed the States to reinvest the rest. In the mid-1990's, FNS began placing some liabilities "at risk" in these agreements, so that States would have to pay the at-risk portion if they did not meet specified targets for error reduction. These changes were implemented gradually and through individual, negotiated agreements, so it is difficult to link them directly with the national trends in error rates. It is clear, however, that the shift in sanctions policy providing increasing motivation for States to adopt policies and operational practices that would reduce their error rates. The adoption of adjustments to error rates for 1998 and later years reduced the liabilities for States with increases in FSP households with earnings or immigrant members, but this retroactive change came very late in the study period and most likely did not affect policies and practices before FY2000.

Changes in caseload composition may have also contributed to the trends in error rates, but this analysis is insufficient to detect such multidimensional effects. The multivariate analysis in the next chapter addresses this possibility.

Variation among States in Positive Case Errors

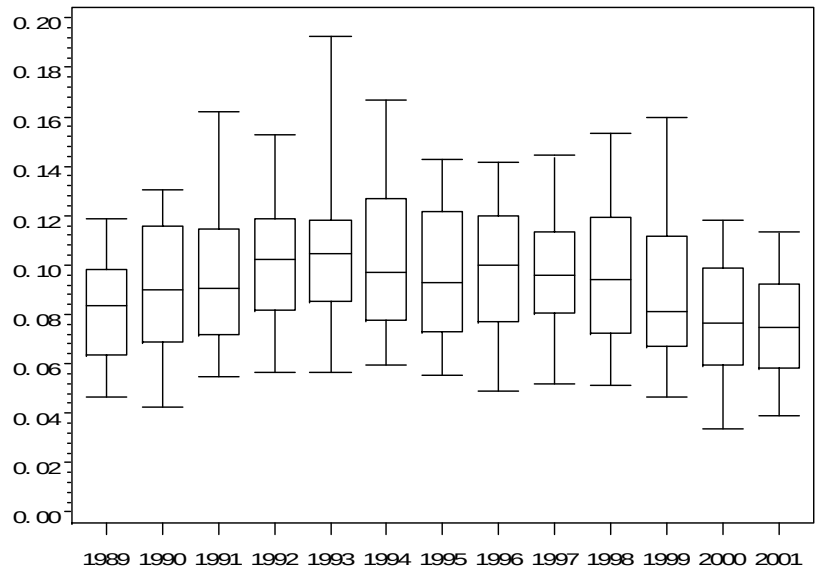
Figure 29 illustrates the variation among States in the total positive case error rate during the study period. The figure uses a "box and whisker" format, in which the range from the 25th to the 75th percentile for each year is represented by a box, and the rest of the range is represented by lines extending up to the maximum and down to the minimum. The figure also shows the median of the State values as a line dividing the "box" of the State values.

The most notable patterns in figure 29 are:

- The median positive case error rate generally had the same general trends as the national (weighted average) rate, except that the median had its second peak in 1996, not 1998.
- The 25th and 75th percentiles generally followed the trend in the median, but there were cycles of increase and decrease in the range between these points.

Figure 29

Variation in State Positive Error Rates, 1989-2001



Note: For each year, the vertical box represents the range from the 25th percentile to the 75th percentile. The line dividing the box is the 50th percentile (median). The lines extending from the box indicate the range (minimum and maximum). Error rates were computed as a percentage of active FSP cases plus negative actions. A constant error threshold of $25 per month was used in estimating error rates.

Several factors may have contributed to the variability in the total positive case error rate. First, States differed in how and when they undertook measures to reduce error rates and other changes that may have indirectly affected error rates. Second, trends in the total caseload and its composition differed across States. Third, error rates may fluctuate randomly because of sampling error.[4]

Trends in Negative Case Errors

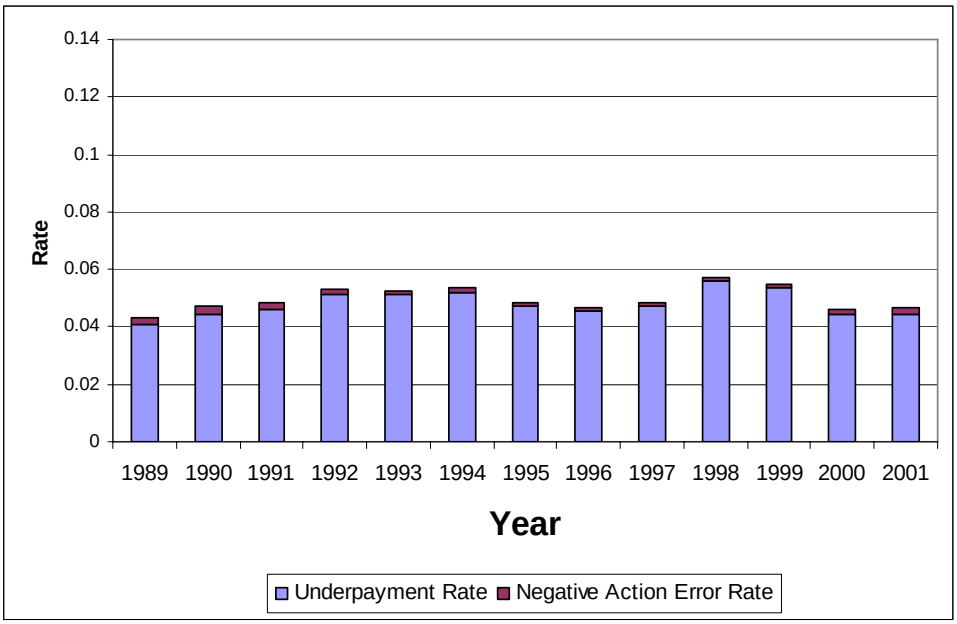
Figure 30 displays the trends in the national negative case error rate and its components, the case underpayment rate and the negative action error rate. As in Figure 28, these are caseload-weighted national averages. The case underpayment rate made up about 96 percent of the total negative case error rate, which averaged 4.97 percent.

The trends in the total negative case error rate were similar to the trends in the national total positive case error rate, but there were some differences. The first peak in the national negative error rate was in 1994, when the positive rate had begun to drop. The negative rate increased more dramatically to its peak for the period in 1998, fell less dramatically in 1999, and rose instead of falling in 2001.

[4] For example, the 95 percent confidence interval of the combined payment error rate in 1998 was plus or minus 1.53 percentage points for Pennsylvania and 2.74 points for New Jersey (Rosenbaum, 2000).

Figure 30

Trends in National Negative Case Error Rate and Components, 1989-2001



Error rates were computed as a percentage of active FSP cases plus negative actions. A constant error threshold of $25 per month was used in estimating error rates.

Variation among States in Negative Case Errors

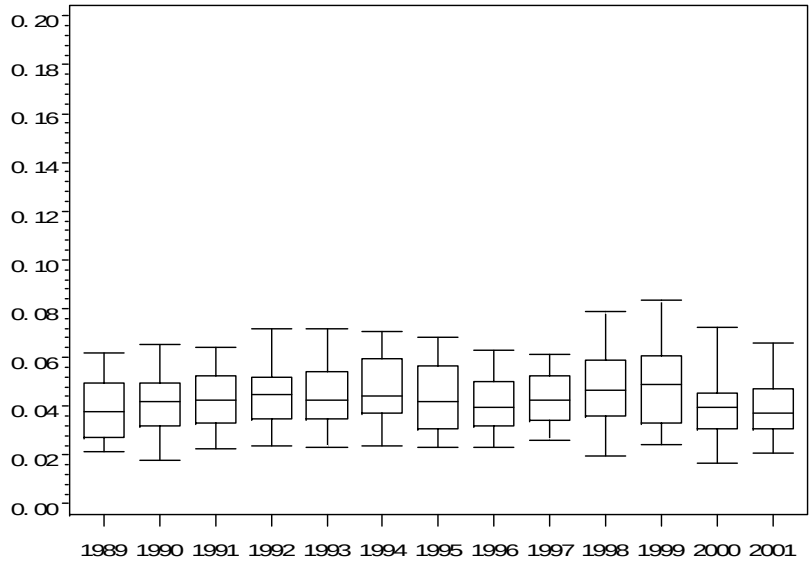
Figure 31 illustrates the variation among States in the total negative case error rate during the study period. The figure uses the "box and whisker" format as in Figure 29. The median state negative case error rate generally followed the trend in the weighted national average, except that the peak occurred in 1999, and the 2001 value was less than in 2000. The interquartile range (between the 25th and 75th percentiles) was noticeably larger in 1994, 1995, 1998, and 1999 than in the other years in the period, i.e., there was more variation in negative case error rates among the States in the middle of the distribution.

Trends in Error Rates and Caseloads

Figure 32 compares the national trends in positive and negative error rates with the trends in the number of FSP households from 1989 to 2001. These trends provide some evidence that error rates tended to be higher when the caseload was high and lower when the caseload was low. The national average positive error rate increased from 1989 to 1993 and generally declined thereafter. It is notable, however, that this rate increased from 1996 to 1998, during the first two years after the enactment of PRWORA, before resuming its downward trend. The national average negative error rate had a similar but less pronounced trend from 1989 to 1996, a more pronounced increase (in relative terms) from 1996 to 1998, a less pronounced drop from 1998 to 2001, and a slight up-tick in 2001.

Figure 31

Variation in State Negative Error Rates, 1989-2001



Note: For each year, the vertical box represents the range from the 25th percentile to the 75th percentile. The line dividing the box is the 50th percentile (median). The lines extending from the box indicate the range (minimum and maximum). Error rates were computed as a percentage of active FSP cases plus negative actions. A constant error threshold of $25 per month was used in estimating error rates.

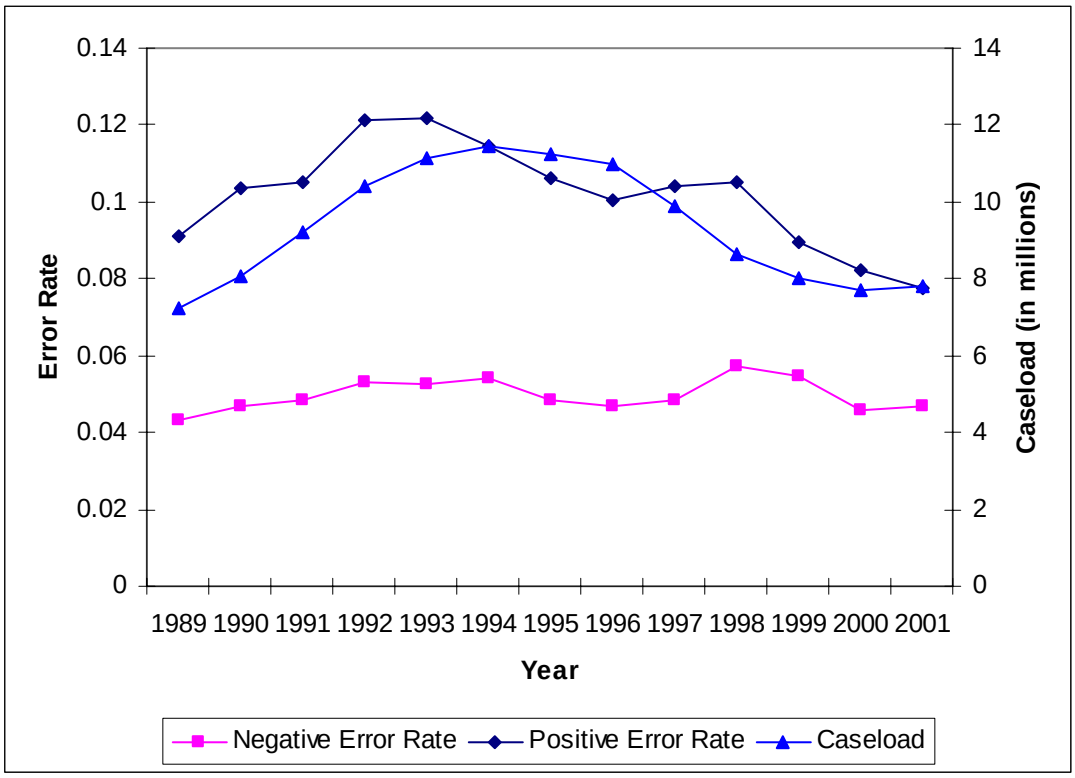
These patterns pose the question of whether there is a relationship between error rates and the size of the FSP caseload. Errors do make a small direct contribution to the level of FSP participation, but the rate of payments to ineligibles averaged only about 2.2 percent of FSP cases over the period, so this contribution is quite modest. Recent studies, as discussed below, have examined the possibility that error-reduction strategies may create barriers to participation, thus leading to a smaller number of participating households than would otherwise be observed. There is a third consideration of particular interest to this study: that rising caseloads may stretch the resources of FSP agencies and thereby contribute to higher levels of error, while falling caseloads free up resources for error reduction. This explanation implies that error rates will fall with or after declines in the FSP caseload, unless resources are added. The analysis for this report addresses this possibility, as discussed in the next chapter.

Literature on Modeling FSP Error Rates

Previous studies offer some empirical evidence on the factors that help explain differences in FSP error rates. Puma and Hoaglin (1987) analyzed two years of QC data (FY1984-1985), with additional population variables from 1980 Census data, and found that the incidence and amount of overpayments were related to household size, sources of reported income, presence of reported assets, number of deductions, and the population density of local office area. Mills (1991) analyzed the relationship between underpayments and overpayments during 1980-1990, and found a positive correlation in cross-sectional data and in year-to-year variation. This finding suggested that at least some error-reduction practices had effects on both types of errors, rather than trading some errors for others.

Figure 32

FSP Households and Error Rates, 1989-2001



Notes: Caseload includes active cases and cases subject to negative action. Negative error rate is percent of caseload with underpayments or negative action errors. Positive error rate is percent of caseload with overpayments or ineligible for benefits. Error rates were computed as a percentage of active FSP cases plus negative actions. A constant error threshold of $25 per month was used in estimating error rates.

More recently, Kabbani and Wilde (2003) conducted a cross-sectional time-series analysis of the total payment error rate from 1990 to 2000. They consistently found that the proportion of FSP households with short certification periods was more strongly associated with their error measure than with any other variable. They also found some caseload characteristics that appeared to influence error rates during the period, including the racial and ethnic composition, the percent elderly, and the percent in working households. They also found that higher error rates were associated with the presence of Democratic Governors or legislatures, after controlling for the possible effects of unemployment rates and poverty levels; there was some evidence that poverty levels were positively associated with error rates. FSP outreach expenditures were included in their models, and one version included a proxy variable for monthly reporting, but neither was significantly associated with error rates. They also did not find a significant effect of AFDC waivers and TANF implementation.

Ziliak, Gunderson and Figlio (2003) found an effect of error on the FSP participation ratio (participants per capita), but this result held only in static estimates, which the authors believe were affected by omitted variable bias. Their dynamic models, which included lagged caseload, unemployment rates, and employment growth rates, showed no significant effect of error in the short term or the long term. This paper used the error rate as a proxy for shortened certification periods and

related policies designed to bring down error rates; the authors did not suggest that error rates directly affect participation.

An important limitation of these studies is that they controlled for few facets of state FSP administration. Kabbani and Wilde provide clear evidence that state policies can be relevant to error rates, confirming the expectations of practitioners who advocate short certification periods and similar error reduction measures. However, there is no longitudinal database of State policies that could be used to account for a broader set of measures.

This study provided an opportunity to approach this problem from a different direction. As discussed in the next chapter, we hypothesized that the level of effort devoted to certification and related activities (normalized for the number of FSP households) is an important variable that has been overlooked and can provide a cumulative measure of a State's relative commitment to accurate certification and error reduction.